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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,496	07/07/2003	Eric Stephane Fourcault	80350-1100	6363

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THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP
600 GALLERIA PARKWAY
STE 1500
ATLANTA, GA 30339

EXAMINER	
PHILOGENE, PEDRO	

ART UNIT	PAPER NUMBER
3733	

MAIL DATE	DELIVERY MODE
10/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/614,496	FOURCAULT ET AL.	
	Examiner	Art Unit	
	Pedro Philogene	3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siddiqui (6,306,140) in view of Sparkes (4,697,969).

With respect to claims 1,13, 15, Siddiqui discloses an osteosynthesis and compression screw for coaptation of small bone fragments, the screw being formed by a single longitudinal body having a longitudinal axis, and comprising a proximal portion formed by a screw head (5) provided with an outside thread, the proximal portion being of diameter greater than the diameter of the remainder of the screw, and intermediate portion (25) having no thread; and a distal portion (7) provided with an outside threads; as best seen in FIG.1,, the terminal zero of the distal portion is provided with preparation means (29) for preparing a housing in the bone fragment for receiving the intermediate and distal portions of the screw.

It is noted that Siddiqui did not teach of a each of the screw head and the distal portion includes at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in such a manner to form tapping means; as claimed by applicant. However, in the screw field, Sparkes evidences the use of a screw with at least one helical groove, firstly extending over the entire axial length of its threads, and secondly being formed through each thread in

such a manner to form tapping means to have exceptionally easy starting and insertion ability and to facilitate counter-sinking, and also reducing the danger of splitting the material being used.

Therefore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to modify the device of Siddiqui, as taught by Sparkes to have exceptionally easy starting and insertion ability and to facilitate counter-sinking, and also reducing the danger of splitting the small bone fragments.

With respect to claims 3-12, 14,16-20, the above combination of references teaches all the limitations, such as, the angle being thirty degrees, the groove being constant, the variation of each groove, the increases of the grooves towards the terminal zone of the screw, the tooth extending substantially axially, the central longitudinal bore, as set forth in column 1, lines 60-68, column 2, lines 1-68; and as best seen in FIGS.1-8 of Sparkles; also as set forth in column 3, lines 40-67, column 4, lines 1-67, columns 5,6, 7, lines 1-67; and as best seen in FIGS.1-12 of Siddiqui.

Response to Arguments

Applicant's arguments filed 8/13/07 have been fully considered but they are not persuasive. In response to applicant's argument "that a person skilled in the art (that is to say a person working in the field of the surgical bone screw) and facing a problem concerning bone compression screw, would not consider the teaching of a document which is merely directed to wood screw." is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned,

in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the question is not whether the combination was obvious to the applicant but whether the combination was obvious to a person with ordinary skill in the art. Given the problem to be solved, which is incorporating a helical groove in a screw, under the correct analysis, any need or problem known in the screw field and addressed by the patents can provide a reason for combining the elements in the manner claimed. It is common sense that familiar items may have obvious uses beyond their primaries purposes, and a person of ordinary skill often will be able to fit the teachings of multiple elements together like a piece of a puzzle. Regardless of Sparkles primary purpose, it provide an obvious example of a screw with an helical groove and the prior art was replete with patents indicating that such a helical groove was ideal for a medical device (Carchidi et al 6,398,785). In addition, where there is a design need or market pressure to solve a problem and there are a finite number of identified, procedural solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. The proper question was whether a bone screw device designer of ordinary skill in the art, facing the wide range of needs created by the developments in the screw fields, would have seen an obvious benefit to upgrading Siddiqui with an helical groove? Sparkes taught of a screw with a helical groove, to have easy starting ability and to facilitate counter-sinking, and also reducing the danger of splitting the material being used to assure reliable operation is achieved. The designer, accordingly, would follow the teaching of Sparkes. Applicant has not shown anything in the prior art

that taught away from the use of Sparkes, not any secondary factors to dislodge the determination that at least claim 1 is obvious. Finally, in Sakraida v. AG Pro, Inc., 425 US 237 (1976) the court derived from the precedents the conclusion that when a patent "simply arranges old elements with each performing the same function it had been known to perform" and yields no more than one would expect from such arrangements, the combination is proper. Again, it is brought to applicant's attention that only the flutes or grooves of Siddiqui are being replaced with the helical grooves of Sparkes, therefore, the smooth intermediate portion of Siddiqui would be devoid of flutes or grooves.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,398,785 6-2002 Carchidi et al

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro Philogene whose telephone number is (571) 272-4716. The examiner can normally be reached on Monday to Friday 6:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272 - 4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pedro Philogene
October 17, 2007

PEDRO PHILOGENE
PRIMARY EXAMINER